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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ADDY, ANTHONY S

ART UNIT PAPER NUMBER

2617

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/623,898

Applicant(s)

ALSTON, DOUGLAS B.

Examiner

Anthony S. Addy

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 February 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 29 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

2. This action is in response to applicant's amendment filed on February 28, 2006.

**Claims** 1-20 are pending in the present application.

### *Response to Arguments*

3. Applicant's arguments with respect to **claims** 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 2, 3, 4, 9, 11-15 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hou et al., U.S. Patent Number 6,901,051 (hereinafter Hou)** and further in view of **Dacosta et al., U.S. Publication Number 2004/0192322 A1 (hereinafter Dacosta)**.

Regarding claim 1, Hou teaches a system, comprising: a service measurement database having stored therein network service measurement data relating to a network (see col. 4, lines 4-23, col. 7, lines 59-67 and Fig. 1; where metric generators 15A-15C

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reads on a service measurement database, since Hou discloses the metric generators are able to generate and store network performance metrics); and a server in communication with the service measurement database (see col. 4, lines 4-48, col. 7, line 59 through col. 8, line 3 and Fig. 1; shows metric servers 17B-17C in communication with metric generators 15A-15C) , wherein the server estimates a data throughput for a device that is in communication with the network based on the network service measurement data (see col. 4, lines 4-55, col. 4, line 65 through col. 5, line 3, col. 9, lines 8-16, col. 11, line 47 through col. 12, line 3 and Fig. 1 [i.e. the limitation “the server estimates a data throughput for a device that is in communication with the network based on the network service measurement data” is met by the teaching of Hou that the performance measurements and generation are performed on the server side using network performance metrics stored in the metric generators])).

Hou fails to explicitly teach the server estimates the data throughput for a device using a parameter received from the device that is in communication with the network.

In an analogous field of endeavor, Dacosta teaches a system, apparatus and method for dynamically allocating wireless channels in a wireless network, wherein a server in communication with the clients estimates acceptable data rates and throughputs for given power levels (see abstract and p. 5 [0048]). According to Dacosta, feedback may be measured from clients to indicate the bit error rate and signal-to-noise ratio (SNR) from previous data packets; and because the server knows the transmit power of the previous packet, the server can determine the relationship between the clients SNR and transmit power for the current propagation path of data

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packets between the server and client (see p. 5 [0048] [i.e. the feedback measured by the server from clients to indicate the clients **signal-to-noise ratio (SNR)** reads on a parameter received from the device that is in communication with the network]).

Dacosta further teaches, using the relationship of the clients SNR and transmit power for the current propagation path of data packets between the server and client, the server estimates acceptable data rates and **throughputs** for given power levels (see p. 5 [0048] [i.e. the server using the relationship of the **clients SNR** and transmit power for the current propagation path of data packets between the server and client to **estimate** acceptable data rates and **throughputs** for given power levels, reads on the limitation “the server estimates the data throughput for a device using a parameter received from the device”).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of a server using a clients SNR to estimate a throughput of Dacosta, in the system of Hou, in order to allocate client devices that receive data at substantially different data rates to different wireless channels and client devices that receive data at substantially similar data rates to the same wireless channel to optimize the total system utility of the network as taught by Dacosta (see p. 1 [0005-0006]).

Regarding claim 2, Hou in view of Dacosta teaches all the limitations of claim 1. In addition, Hou teaches a system, wherein the server includes an application server (see col. 3, lines 65-67).

Regarding claim 3, Hou in view of Dacosta teaches all the limitations of claim 1. In addition, Hou teaches a system, wherein the network is one of a wireless network, a wireline network, the Internet, an intranet (see col. 3, lines 16-31).

Regarding claim 4, Hou in view of Dacosta teaches all the limitations of claim 1. In addition, Hou teaches a system, wherein the device includes one of a personal computer and a handheld computing device (see col. 3, lines 42-64 and Fig. 1).

Regarding claim 9, Hou in view of Dacosta teaches all the limitations of claim 1. In addition, Hou teaches a system, wherein the server is in communication with a service center (see col. 5, lines 38-47).

Regarding claims 11 and 20, Hou teaches an apparatus and a method of communicating a network relative network throughput to a user device (see col. 5, lines 38-43, col. 4, lines 48-55 and Fig. 1; shows client systems in communication with metric servers 17B-17C [i.e. reads on a communication device that is in communication with a computing device] and including metric generators 15A-15C [i.e. reads on a service measurement database, since Hou discloses the metric generators are able to generate and store network performance metrics]), comprising: receiving a second parameter from a service measurement database (see col. 4, lines 4-48, col. 7, line 59 through col. 8, line 3); calculating the relative network throughput based on the second parameter (see col. 4, lines 4-55, col. 4, line 65 through col. 5, line 3, col. 9, lines 8-16, col. 11, line 47 through col. 12, line 3 and Fig. 1 [i.e. the limitation “calculating the relative network throughput based on the second parameter” is met by the teaching of Hou that the performance measurements and generation are performed on the server side using

network performance metrics stored in the metric generators [i.e. reads on a second parameter from a service measurement database]); and communicating the relative network throughput to the communications device (see col. 5, lines 38-43).

Hou fails to explicitly teach receiving a first parameter from a communications device that is in communication with a computing device and calculating the relative network throughput based on the first parameter.

In an analogous field of endeavor, Dacosta teaches a system, apparatus and method for dynamically allocating wireless channels in a wireless network, wherein a server in communication with the clients estimates acceptable data rates and throughputs for given power levels (see abstract and p. 5 [0048]). According to Dacosta, feedback may be measured from clients to indicate the bit error rate and signal-to-noise ratio (SNR) from previous data packets; and because the server knows the transmit power of the previous packet, the server can determine the relationship between the clients SNR and transmit power for the current propagation path of data packets between the server and client (see p. 5 [0048] [i.e. the feedback measured by the server from clients to indicate the clients **signal-to-noise ratio (SNR)** reads on the limitation "receiving a first parameter from a communications device that is in communication with a computing device"])). Dacosta further teaches, using the relationship of the clients SNR and transmit power for the current propagation path of data packets between the server and client, the server estimates acceptable data rates and **throughputs** for given power levels (see p. 5 [0048] [i.e. the server using the relationship of the **clients SNR** and transmit power for the current propagation path of

data packets between the server and client to **estimate** acceptable data rates and **throughputs** for given power levels, reads on the limitation “calculating the relative network throughput based on the first parameter”).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of a server using a clients SNR to estimate a throughput of Dacosta, in the system of Hou, in order to allocate client devices that receive data at substantially different data rates to different wireless channels and client devices that receive data at substantially similar data rates to the same wireless channel to optimize the total system utility of the network as taught by Dacosta (see p. 1 [0005-0006]).

Regarding claim 12, Hou in view of Dacosta teaches all the limitations of claim 11. Dacosta further teaches, wherein receiving the first parameter includes receiving the first parameter via a network (see p. 2 [0021-0022], p. 5 [0048] and Fig. 1).

Regarding claim 13, Hou in view of Dacosta teaches all the limitations of claim 11. Dacosta further teaches, wherein receiving the first parameter via a network includes receiving the first parameter via the Internet (see p. 2 [0021-0022], p. 5 [0048] and Fig. 1).

Regarding claim 14, Hou in view of Dacosta teaches all the limitations of claim 11. Dacosta further teaches, wherein receiving a first parameter includes receiving on of a received signal strength (RSS), a signal-to-interference ratio (SIR), a primary serving site, a sector and a carrier (see p. 5 [0048]).

Regarding claim 15, Hou in view of Dacosta teaches all the limitations of claim 11. In addition, Hou teaches a method, wherein receiving a second parameter includes receiving one of an indication of total voice traffic/sector/carrier, an indication of total data traffic/sector/carrier, and indication of origination failures, and an indication of dropped calls (see col. 4, lines 1-47).

Regarding claim 18, Hou in view of Dacosta teaches all the limitations of claim 11. In addition, Hou teaches a method, wherein calculating the network throughput includes calculating a forward link relative throughput (see col. 4, line 49 through col. 5, line 18).

Regarding claim 19, Hou in view of Dacosta teaches all the limitations of claim 11. In addition, Hou teaches a method, wherein calculating the network throughput includes calculating the network throughput as one of a numerical value and a range of numerical values (see col. 4, line 49 through col. 5, line 18).

6. Claims 5, 6, 7, 8, 10, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hou et al., U.S. Patent Number 6,901,051 (hereinafter Hou)** and **Dacosta et al., U.S. Publication Number 2004/0192322 A1 (hereinafter Dacosta)** as applied to claims 1, 11 and 20 above, and further in view of **Well Known Prior Art – Official Notice**.

Regarding claims 5, 6, 7, 8, 10, 16 and 17, Hou in view of Dacosta teaches all the limitations of claims 1, 11 and 20. The combination of Hou and Dacosta fails to explicitly teach a system and method, wherein the server communicates the throughput

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of the network to a modem and wherein the modem includes a display area that is configured to display an indication of the throughput of the network. However, the examiner takes Official Notice that it is well known in the art to use a modem to connect a client device to communicate with a network and for a modem to include a display area that is configured to display an indication of the throughput of the network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and method of Hou and Dacosta to include a modem with a display area that is configured to communicate and display an indication of network performance metrics such as a throughput of the network, so that the user of the communication device can adapt their interactions with the network accordingly.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Rappaport et al., U.S. Publication Number 2004/0259555 A1 discloses system and method for predicting network performance and position location using multiple table lookups.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony S. Addy whose telephone number is 571-272-7795. The examiner can normally be reached on Mon-Thur 8:00am-6:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc M. Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Anthony S. Addy  
May 11, 2006



ELISEO RAMOS-FELICIANO  
PRIMARY EXAMINER